

WHAT IS CLAIMED IS:

1. An imaging device, comprising:

a convex mirror for reflecting incident light representing an object, the convex mirror having a shape of solid of revolution;

an imaging mechanism for taking an image represented by reflected light from the convex mirror; and

an optical member for guiding the incident light toward the convex mirror and guiding the reflected light toward the imaging mechanism, the optical member being in close-contact with the convex mirror.

2. An imaging device according to claim 1, wherein the optical member has a concave portion which is in close-contact with the convex mirror so as to cover the convex mirror.

3. An imaging device according to claim 2, wherein the convex mirror is formed of a thin layer of a material having a mirror-surface effect, the thin layer being provided on the concave portion.

4. An imaging device according to claim 1, wherein the convex mirror is formed of a metal material.

5. An imaging device according to claim 1, wherein the convex mirror is formed of aluminum.

6. An imaging device according to claim 1, wherein the convex mirror is formed as a result of vapor-deposition, sputtering or plating of a material having a mirror-surface effect.

7. An imaging device according to claim 1, wherein the imaging mechanism includes a lens for converging the reflected light, and an imaging section for taking an image represented by the reflected light converged by the lens; and the lens is integrally formed with the optical member.

8. An imaging device according to claim 1, wherein the imaging mechanism includes a lens for converging the reflected light, and an imaging section for taking an image represented by the reflected light converged by the lens; and the lens is in close-contact with the optical member.

9. An imaging device according to claim 8, wherein the optical member has a refractive index which is smaller than the refractive index of the lens.

10. An imaging device according to claim 1, wherein the optical member has an outer circumferential surface formed so as to cause the incident light to be incident thereon in a direction normal to the outer circumferential surface.

11. An imaging device according to claim 1, wherein the optical member has a reflected light releasing face formed so as to cause the reflected light directed toward the imaging mechanism to be incident thereon in a direction normal to the reflected light releasing face.

12. An imaging device according to claim 11, wherein the reflected light releasing face is a part of a surface of a circle having, as the center, a focal point at which the reflected light is converged.

13. A method for producing an imaging device according to claim 1, the method comprising the steps of:

causing the optical member to be in close-contact with the convex mirror so that the optical member covers the convex mirror; and

attaching the imaging mechanism to the optical member so that the reflected light is incident on the imaging mechanism.

1. A method of manufacturing a device for imaging a scene, comprising:
2. providing a convex mirror;
3. providing an optical member;
4. causing the optical member to be in close-contact with the convex mirror so that the optical member covers the convex mirror; and
5. attaching the imaging mechanism to the optical member so that the reflected light is incident on the imaging mechanism.